

# Allergy and Immunology



## Calcium

Calcium is a mineral that is important for strong bones and teeth. Low calcium intakes have been linked to osteoporosis in later life. The major sources of calcium in most Western diets are dairy products such as milk, yoghurt and cheese. Other good sources of calcium are bony fish (canned salmon and sardines), almonds, fortified soy products and fortified plant rice beverages. Small quantities of calcium can be found in other nuts, some dried fruits, sesame seeds and green leafy vegetables (spinach, parsley) but phytates and oxalates in these foods limit absorption.

Cow's milk allergy is the most common food allergy affecting young children. A large number of children with cow's milk allergy also have soy allergy so obtaining enough calcium from other dietary sources can be difficult.

It is important to ensure an adequate calcium intake. Calcium needs change with age (see below).

Adequate intakes of calcium for: 0-6 months of age = 210mg/day, 7-12 months = 270mg/day.

Age	Daily Calcium EAR and RDI (mg)	
1-3yr	360	500
4-8	520	700
9-11	800	1000
12-18	1050	1300
Breastfeeding women	840	1000

*\*Calcium estimated average requirements (EAR) is adequate for individual children, average height and below. Recommended daily intake (RDI) of calcium should be used if looking at groups of children or for taller children.*

To ensure strong bones it is also important to get enough Vitamin D as it helps the body absorb calcium. Some foods such as oily fish and eggs contain small amounts of vitamin D, while dairy free margarines (Nuttelex, Flora Plant, Tablelands Dairy Free) and some dairy free milks have added vitamin D. However, food only makes a small contribution to the body's overall vitamin D levels, it is important to expose your skin to the sun in order to form vitamin D. It is recommended to try to have daily sun exposure in winter and at least a few minutes morning and afternoon in summer without sunscreen. If you have dark skin colour you may need a vitamin D supplement. Discuss with your doctor.

The table below lists the calcium content of a number of foods

Food	Calcium	Food	Calcium
Cow's milk 100ml	120mg	Calcium fortified oat, rice or almond beverage 100ml	120mg
Cow's milk yoghurt 120g	120-200mg	*ensure extra fat and protein in diet	
Cow's milk cheese 20g (1 slice)	125mg	Almonds 30g (1 handful)	75mg
Soy milk (fortified with calcium) 100ml	120mg	*crush for younger child	
		Tahini (sesame paste) 1tblsp	65mg

Soy cheese 20g	5-10mg	Made with Plants Cheese (40g)	264 to 288mg
Soy yoghurt per 125g serve		Bony fish ie. sardines, tinned salmon 90-100g (must eat the bones)	250mg
- Kingland Dairy Free Greek Yoghurt	125mg	Or calcium rich fish e.g. John West Calcium Rich Tinned Tuna 78g	838mg
- Kingland Dairy Free Yoghurt (plain)	125mg		
- Kingland Yoghurt variety 4 pack	134mg		
Tofu (made using calcium sulphate) 100g	120mg	Boiled spinach, broccoli or raw parsley (1/2cup)	30-66mg
Cocobella Yoghurt Pouch 110g	124mg	Alpro Plant Based Yoghurt 100ml	120mg
Chia seeds (1 tbsp)	80mg	Fancy Plants Rice Pudding 110g	117mg
Dried figs 1 (19g)	38mg	Fancy Plants Chia Pot 150g (vanilla, chocolate + coconut)	108 to 135mg

It is important to consider how much calcium your child's formula or breastmilk is providing, especially over 1 year old

Breast milk and formula	Calcium per 100ml
Breast milk	28mg
0-6 months infant formula, Peptijunior, Alfare, Allerpro 1, Alfamino	40-60mg
6-12 months infant formula, soy formula, Elecare, Novalac Allergy, Neocate, Allerpro 2	60-80mg
Neocate Junior, Elecare vanilla	90-120mg

## CALCIUM SUPPLEMENTS

Calcium supplements are available over the counter at chemists and supermarkets.

They are used to supplement the diet if the dietary intake of calcium is low.

Ask your pharmacist for more information regarding the below products.

Supplement Name	Description	Calcium Amount/tablet	Vitamin D amount/tablet	Allergen info
Calci-tab	Chalky tablets that can be crushed and added to foods or swallowed whole	600mg	Nil	Milk, soy, gluten, egg and rice free.
Cal-sup	Chewable spearmint flavoured tablet	500mg	Nil	Milk, soy, gluten free
Caltrate varieties	Chalky tablets that can be crushed and added to foods or swallowed whole	600mg	0-1000IU	Milk, egg, soy free

### Disclaimer

The products included in this resource are not exhaustive and may change. Individuals with food allergy should always check food labels each time a product is purchased.

Nature's Way Calcium and Vitamin D (Vita Gummies)	Vanilla/raspberry flavoured chewable pastilles	100mg	200IU	Milk free Contains soy + gluten
Nature's Way Adult Vita Gummies calcium and Vitamin D	Vanilla pastilles (soft gummy)	200mg	Vit D 333IU	Milk, soy and gluten free
Nature's Way Kids Smart Calcium and Vitamin D	Chewable strawberry flavoured soft capsule	200mg	300IU	Milk + gluten free Contains soy
Nature's Way Kids Smart Bones, Teeth, muscles Calcium and Vitamin D	Chewable Raspberry tablet	400mg	Vit D 350IU	Milk free Contains soy + gluten
Ostelin Calcium and Vitamin D3	Chalky tablet, can crush & add to food	600mg	Vit D 500IU	Milk, egg, gluten + rice free Contains soy
Ostelin Kids Vitamin D and Calcium	Chewable berry flavoured tablet	350mg	Vit D 300IU	Milk, soy, egg, gluten + rice free.
Ostelin Vitamin D & Calcium	Chewable citrus flavoured tablet	600mg	Vit D 500IU	Milk, soy, egg, gluten + rice free.
Pentavite Kids Calcium, Magnesium and Vitamin D3 Liquid	Mango flavoured	130mg per 10ml	64IU per 10ml	Milk + gluten free
Pentavite Kids Calcium, Vitamin D and K2 Capsules	Vanilla flavoured capsules containing liquid	62.5mg	25IU	Milk and gluten free
Pentavite Kids Calcium, Vitamin D and K2 Chewable	Chewable strawberry flavoured tablet	125mg	330IU	Milk + gluten free
Swiss Ultiboost Calcium + Vit D	Chalky tablets that can be crushed and added to foods or swallowed whole	333mg	333IU	Milk, gluten, egg, soy, rice free.
Swisse Calcium Liquid For Baby	Vanilla flavour liquid in capsules	100mg	150IU	Milk, gluten + egg free. Contains soy.
Swisse Kids Bone Health	Chewable vanilla flavoured capsule	200mg	300IU	Milk, gluten, egg + rice free. Contains soy + fish.
Swisse Ultiboost Calcium + Vitamin D Effervescent Tablets	Natural lemon flavour effervescent tablet	500mg	500IU	Milk, soy, gluten + egg free.

*\*Adult supplements may be needed to achieve calcium requirements. An allergy dietitian can help recommend the most suitable supplement for you and/or your child.*

TIP: Calcium supplements are more effective when taken:

- In split doses (calcium is best absorbed in doses less than 500mg)
- Ideally take with a meal ie. breakfast
- Avoid taking with tea (phytates) or caffeinated beverages

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